

Tris Preparation

Mw (Tris) = 121.1 gr/mole

Final volume: 3 ml

Final concentration: 1 M = 1 mole/lit = 0.001 mole/ml

Tris_Weight: $121.1 \text{ gr/mole} \times 0.001 \text{ mole/ml} \times 3 \text{ ml} = 0.3633 \text{ gr}$

Tris_moles: $0.001 \text{ mole/ml} \times 3 \text{ ml} = 0.003 \text{ moles}$

1. Transfer 2 ml of d-water to a beaker and add a stir bar and place the beaker onto the stir plate.
2. Weight 0.3633 gr Tris. The measurement should be within plus/minus 0.02 gr.
3. Dissolve the Tris into distilled deionized water, 1/3-1/2 of your desired final volume.
4. Insert the pH meter probe into the solution.
5. Titrate HCl (e.g., 1M HCl) until the pH meter gives you the desired pH for your Tris buffer solution (pH=7.5). (Remove the pH meter probe).
6. Dilute the buffer with water to reach the desired final volume of solution using a cylinder.
7. Verify that the pH is still 7.5.
8. Autoclave and store at room temperature.